

where M is an integer > 2 .

26. (Amended) A diode laser system, comprising:

a laser head assembly which generates an output beam, the laser head assembly including:

M modules which generate M laser beams, wherein each of said M laser beams occupies a different wavelength band;

M-R dichroic bandedge filters, wherein each of said M-R dichroic bandedge filters transmits at least a respective one of said M laser beams occupying a given wavelength band and reflects all other of said M laser beams not occupying the given wavelength band; and

an optical device which combines said M laser beams to thereby produce said output beam,

wherein:

M and R are positive integers; and

M is an integer ≥ 2 .

31. (Amended) A laser head assembly which generates an output beam including M laser beams, comprising:

M modules generating M laser beams, wherein each of said M laser beams has a different single wavelength; and

M-2 dichroic bandedge filters, wherein each of said M-2 dichroic bandedge filters transmits a corresponding one of said M laser beams and reflects all other of said M laser beams;

wherein M is an integer > 2 .

32. (Amended) The laser head assembly as recited in claim 31, further comprising a fiber coupling device collecting said M laser beams to produce an output beam.

33. (Amended) A method for generating a high energy laser beam, comprising:

(a) generating P collimated laser beams, each of the P collimated laser beams having an unconstrained wavelength within an Mth wavelength band;

(b) repeating step (a) M times so as to produce MxP collimated laser beams grouped into M different wavelength bands; and

(c) coupling said MxP collimated laser beams into an optical path to produce a high energy beam,

wherein M and P are integers ≥ 2 .

36. (Amended) A diode laser system, comprising:

laser head assembly (LHA) which generates an output beam, the LHA including:

M modules generating M laser beams, wherein each of said M laser beams has a different single wavelength;

M-1 first dichroic bandedge filters defining an optical waveguide for directing all of said M laser beams into the optical path, wherein each of said M-1 bandedge dichroic filters transmits a corresponding one of said M laser beams and reflects all other said M laser beams; and

a fiber coupling device disposed adjacent to the optical path for collecting said M laser beams to thereby produce an output beam;

where M is an integer ≥ 2 .

40. (Amended) A diode laser system, comprising:

first means for generating M first laser beams, wherein each of said M first laser beams has a different single wavelength;

M-1 first filter means defining a first optical waveguide for directing all of said M first laser beams into a first optical path, wherein each of said M-1 filter means transmits a corresponding one of said M first laser beams and reflects all other said M first laser beams;

second means for generating M second laser beams, wherein each of said M second laser

beams has a different single wavelength;

M-1 second filter means defining a second optical waveguide for directing all of said M second laser beams into a second optical path, wherein each of said M-1 second filter means transmits a corresponding one of said M second laser beams and reflects all other said M second laser beams;

polarization combining means disposed at the intersection of said first and second optical paths for coupling said M first and said M second laser beams into said second optical path to thereby produce 2M polarization coupled laser beams; and

fiber coupling means disposed adjacent to said second optical path for collecting said 2M polarization coupled laser beams to thereby produce an output laser beam,

wherein M is a integer ≥ 2 .

41. (Amended) A method for generating a high energy laser beam, comprising:

(a) generating P collimated laser beams, each of the P collimated laser beams having an unconstrained wavelength within an Mth wavelength band;

(b) repeating step (a) M times so as to produce MxP collimated laser beams [having] grouped into M different wavelength bands;

(c) coupling said MxP collimated laser beams into an optical path; and

(d) coupling said MxP collimated laser beams into an ith optical fiber to thereby produce a corresponding ith output laser beam, where i = 1 to N;

where M, N and P are positive integers and both M and P ≥ 2 .

REMARKS

Claims 1-41 are pending in the application. In the Amendment, claims 25, 26, 31, 32, 33, 36, 40, and 41 are amended for clarity. With respect to claims 32 and 40, these claims are amended at the points indicated by the Examiner. In addition, claims 25 and 31 are amended to recite "> 2" instead of " ≥ 2 ," since the situation where M = 2 is a logical impossibility. With respect to claims 25,